



GLOBAL CLIMATE CHANGE – E-CAM Regional Program

MAY 2006



Through the U.S.-Central American Joint Accord and USAID's capacity-building and vulnerability-reducing measures, the environmental situation in Central America is greatly improving. As environmental problems are solved, the positive effects are expected to spill over into other sectors, improving economic and social conditions as well.

Background. The USAID Central America Regional Program, formerly managed by USAID/Guatemala, was transferred to USAID/El Salvador and includes the Central America and Mexico (CAM) region. The USAID/E-CAM Regional Program resources are focused on economic growth and development, and humanitarian assistance and crisis response. Recognizing the importance of the Central America-Dominican Republic Free Trade Agreement (CAFTA-DR), USAID/E-CAM is supporting several activities to help prepare Central American countries for the challenges related to implementation, including cleaner production activities. As part of its economic growth activities, USAID/E-CAM is supporting management of critical watersheds, which will be achieved by securing the financial sustainability of these protected areas, implementing consistent watershed management plans, and increasing the use of private voluntary mechanisms.

Sector Specific Climate Change Activities. *Reduced Net Greenhouse Gas Emissions from the Land Use Sector.* Over the past several years, USAID has provided support to the entire Central American region, approximately 64,750,000 hectares (ha), including all protected areas, to improve land-use management. USAID directly improved the management of 48,123 ha in the protected areas of Consiguina Volcano, Complejo Conchagua, and Estero Padre Ramos in Nicaragua, by strengthening the management and planning capabilities of the parks' managers. Belize has declared 11 new protected areas and developed a National Protected Areas Strategy as a direct result of USAID efforts. Co-management policies were implemented in Honduras, Costa Rica, and Nicaragua, thereby improving protected area and buffer zone management. A regional strategy for the development of private natural reserves was completed and a national policy for Private Nature Reserves was developed in Honduras. With support from USAID, Belize developed a new National Protected Areas Strategy and El Salvador developed a National Protected Areas Law, thus providing an improved basis for enforcement. In Bocas del Toro, Panama, the mayor requested technical assistance to develop a land use plan using participatory processes to help guarantee balanced development in the area. This strong technical base set the stage for increasing the amount of well-managed forests to the current total of 1,218, 137 ha.

Sustainable forestry has been actively promoted in USAID programs resulting in the certification of nine forestry concessions, totaling 88,915 ha under improved management practices. Finally, in collaboration with the Rainforest Alliance, improved logging was introduced in over 1,646,770 ha of logging concessions. USAID's success at getting Preferential Purchase

Programs¹ incorporated into the Nicaraguan forestry law led to increased demand and markets for certified timber, increasing implementation of best management practices in forest concessions.

Reduced Net Greenhouse Gas Emissions from the Energy Sector, Industry, and Urban Areas. USAID support for reducing greenhouse gas emissions from the energy sector, industry and urban areas includes a \$10 million DCA² loan guarantee to provide credit to small and medium size entities to invest in cleaner production technology; industrial and municipal waste reduction and recycling efforts; and pilot municipal waste methane gas recovery. This DCA loan guarantee is supporting clean air activities aimed at reducing sulfur emissions through the adoption of higher standards by Central American countries for imported fuels. The municipal and industrial waste activity has carried out national studies on select industrial wastes to identify their environmental impact and the potential for reuse.

Through the PROARCA-Environmental Management Systems (Sigma) activity, USAID provided assistance to municipalities throughout the region to improve solid waste management, helping to reduce methane emissions from landfills. In collaboration with the U.S. Environmental Protection Agency (EPA), USAID and local partners conducted a feasibility study for capturing methane emissions from a municipal landfill in Guatemala. Initial results show the methane is of sufficient quality and quantity to be used in generating electricity.

Capacity Building Including Activities in Support of the U.N. Framework Convention on Climate Change. USAID is working to improve the region's ability to monitor, mitigate, and adapt to environmental threats related to climate change – particularly fires. In collaboration with the Department of Interior (DOI) and the Central American Commission for Environment and Development (CCAD), efforts are being undertaken to improve regional

¹ Preferential Purchase Programs is an initiative promoted by organizations and governments to encourage corporations and governments to establish wood purchase preference policies (PPPs) that favor the use of certified wood products in purchasing/bid-filling decisions. Organizations such as Metafore (previously known as the Certified Forest Products Council), the Global Forest and Trade Network (GFTN) and the World Wildlife Fund (WWF) have been instrumental in moving these initiatives forward.

² USAID's Development Credit Authority (DCA) is a facility that permits USAID to issue partial loan guarantees to private leaders to achieve economic development objectives. DCA partial guarantees help mobilize loan capital and put it to use in credit worthy but underserved markets.

USAID's partners in climate change activities in E-CAM include*:

- Central American Commission for Environment and Development (CCAD)
- Defensores de la Naturaleza
- United States Department of Interior (DOI)
- United States Environmental Protection Agency (EPA)
- Foundation Kukulkan
- International Resources Group (IRG)
- United States Aeronautics and Space Administration (NASA)
- Oak Ridge National Laboratory
- Rainforest Alliance
- The Nature Conservancy (TNC)
- United States Geological Services (USGS)
- Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC)
- World Wildlife Fund (WWF)

* Because partners change as new activities arise, this list of partners is not comprehensive.

For more information on the USAID Central America and Mexico Program, visit USAID's Web site at:

<http://www.usaid.gov>

capacity to prevent and fight large-scale fires and pest infestations in degraded forests.

USAID, in collaboration with EPA, is providing a comprehensive three-year greenhouse gas (GHG) inventory improvement program to build a foundation for raising the quality of greenhouse gas inventories in the Central America region, and to assist in the application of the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance. As a result, software has been developed for IPCC key source analysis, and GHG emissions from the agricultural and forestry sectors are being calculated in partnership with the Central American focal points in all seven Central American countries. Furthermore, each country is working with U.S. soil experts to improve data collection and implement higher tier IPCC methods. Forest carbon coefficients in Central America have been reviewed to improve land use change and forestry inventory estimates.

Finally, USAID, in collaboration with the U.S. National Aeronautics and Space Administration (NASA), has been supporting the SERVIR Project aimed at developing a computer architecture system to acquire, integrate and archive Landsat, MODIS, and other satellite and geographic data for the Central American region. The system has facilitated the development of regional fine-scale satellite-based land cover maps which will be used as inputs to assess regional carbon stocks. Regional land cover and land use maps are being used to stimulate current and future climate change scenarios for Central America using state of the art regional and global climate models. In addition, these maps will provide input into the Global Climate Observing System (GCOS) action plan for Central America. The SERVIR system is fully operational and is providing satellite and geographic information (both raw data and derived data products) on issues such as daily fires and red tides.